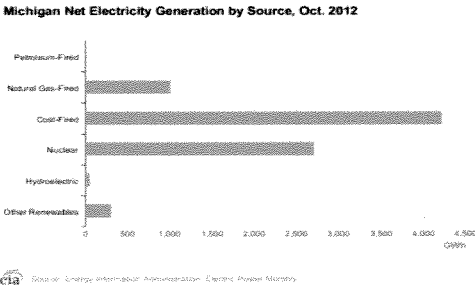


### Michigan's Renewable Energy Standard

Patty Birkholz, West Michigan Director  
Michigan League of Conservation Voters

Michigan's Electricity Generation



» 2

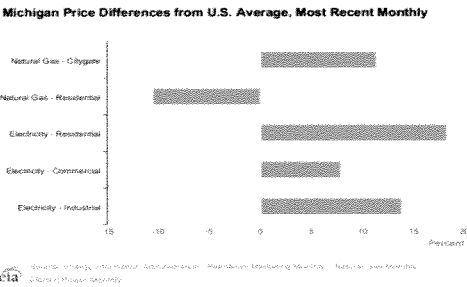
Michigan's coal imports

- » More than 50% of our electricity comes from imported coal.
- » This means Michigan sends \$1.2 billion a year—and the jobs that money creates—to other states because we don't have more homegrown renewable energy.

Source: U.S. Energy Information Administration

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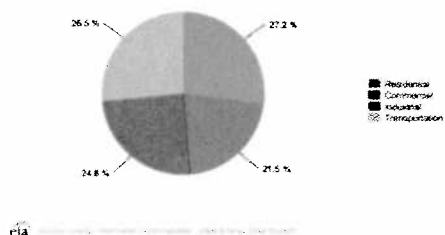
Michigan has the highest electric costs in the region



» 4

## Energy Use by Sector in Michigan

Michigan Energy Consumption by End-Use Sector, 2010



5

## Michigan's Renewable Energy Standard

▪ **Current law (2008):** 10% MI electricity must come from renewable sources by 2015

▪ Wind, solar, hydropower, biomass

▪ Governor, utilities, Michigan Public Service Commission agree: **MI renewable energy standard** is on track:

- \*growing business opportunities
- \*creating local jobs

6

## Michigan's Renewable Energy Standard: 10% by 2015

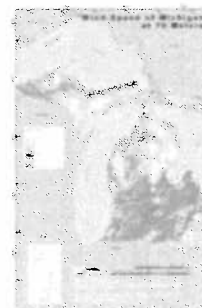
### Results

- More than 1000 megawatts of new renewable energy in Michigan
- 70 of 71 electric providers are expected to meet the 10% standard
- Standard has resulted in significant private investment in renewable energy projects

7

## MI Wind Supply when 2008 law took effect

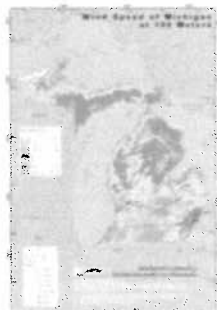
- Wind energy production occurs at 7 meters/second (pink on the map)
- Wind turbines topped out at around 80 meters tall
- Because of technological limits, optimum wind production zones in isolated locations



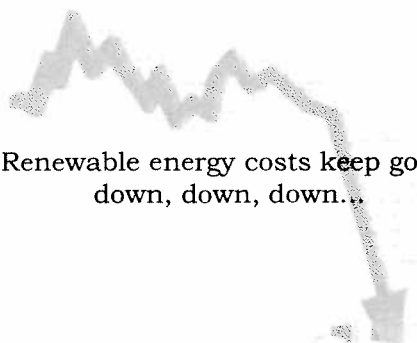
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## Wind Supply - NOW: 2012

- Since 2008 PA 295:
  - Wind turbines at least 100 meters tall
  - Capacity per turbine increased
  - Energy production per turbine increased almost 55%
  - Economical wind production possible in 60% of Michigan's total land area**
  - On-shore wind potential using 2012 technology is 478% of 2011 electricity delivery in Michigan
  - Michigan could generate 25% of its energy from wind alone, on 4,600 acres of land (8% of our land)



Renewable energy costs keep going down, down, down...



## What they're saying about cost

*"We've experienced lower costs to build our own wind energy parks, as well as for contracts to purchase power. Contributing to that have been **technology improvements that have led to better wind and solar energy production**, as well as federal production tax credits that have offset our costs."*

- Irene Dimitry, DTE Vice President of marketing and renewables

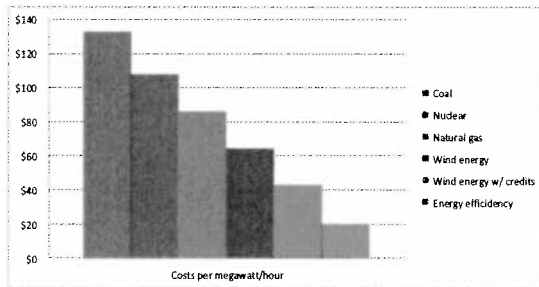
*"The actual cost of renewable energy contracts submitted to the Commission to date **continues to show a downward pricing trend. This was the case in the previous report, and continues to be true.**"*

- Michigan Public Service Commission report, February 2013

Renewable energy is now cheaper in Michigan than operating old and new coal plants.

Source: Michigan Public Service Commission report, February 2013

## Cost of Michigan's energy choices



Source: Michigan Public Service Commission, US Energy Information Administration, Consumers Energy, Bay City Times

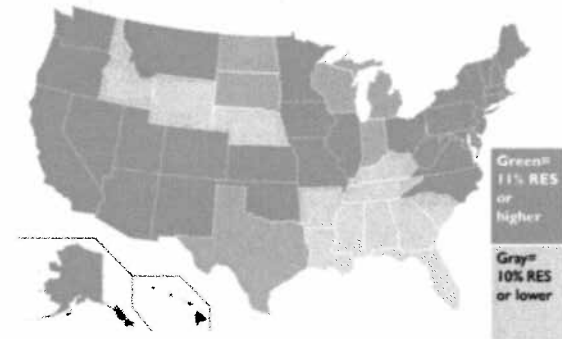
## AP Associated Press: Michigan's biggest utilities eliminating, slashing green energy fees 8/17/13

LANSING, Mich. — Four years after raising customers' bills to meet mandates to sell cleaner power, Michigan's biggest utilities are eliminating the fees or slashing them significantly.

Residential customers of DTE Electric may see their **\$3 monthly surcharge fall to 43 cents** under a plan pending with state regulators. Consumers Energy's 52-cent monthly fee for residential customers — which previously fell from \$2.50 — **could go away entirely** next year.

In February, the state Public Service Commission reported that Michigan had seen more than \$1.8 billion in economic investment because of the 2008 law mandating the development of solar, wind, biomass or hydropower. The agency also said **the cost of renewable energy continues to decline** and is cheaper than bringing new coal-fired plants online.

## Michigan lags behind other states



## Minnesota



- Has a 25% by 2025 renewable energy standard
- Gov. signed bill in late May increasing solar energy use to 1.5% by 2020 and set a goal of 10% for solar by 2030

## Illinois



- ▶ Has a 25% by 2025 renewable energy standard
- ▶ Renewable energy has lowered regional power prices, saving Illinois consumers \$176 million in 2011 alone

Source: Illinois Power Agency report, 2012

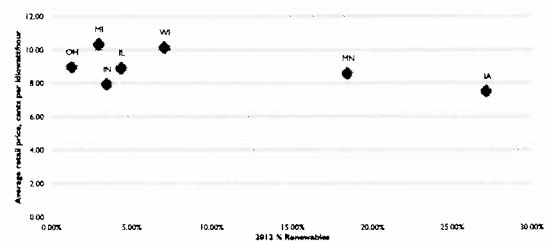
## Iowa



- ▶ More than 25% of electricity comes from renewables NOW
- ▶ Just announced: MidAmerican Energy wind development = 40% RES by 2015

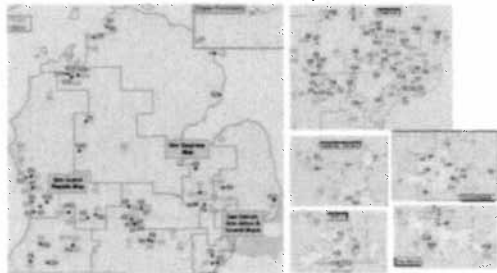
Michigan can't afford to get left behind.

States with higher renewable energy standards have lower electricity costs



## Michigan's Clean Energy Sector

- 20,500 Michigan jobs across the state
- \$5 billion in annual economic activity



Source: Wind Group, 2012. Michigan's Clean Energy Sector: The Wind and Wind Energy Report (2012). 2013

## MI poised to be 'regional leader'



Examples of local economic development:

DTE's three wind parks in Gratiot, Huron and Sanilac counties will contribute \$150 million in economic benefits to Michigan.

Consumers Energy's Lake Winds Energy Park provided an "economic boost of nearly \$10 million" for Mason County and the state of Michigan.

- ▶ *"Michigan has the potential to become a regional leader in development and manufacturing of renewable energy systems, building on the state's engineering expertise, modernized machining, and investment in renewable energy in coming years."*

—MPSR Report, 2013

## Governor Rick Snyder



- ▶ *In an interview with the Associated Press, Gov. Snyder said the 10% by 2015 renewable energy standard should rise, "it's a question to what degree."*

## Governor's Energy Forums

### Forums held in:

- ▶ Lansing
- ▶ Grand Rapids
- ▶ Bay City
- ▶ Kalamazoo
- ▶ Detroit
- ▶ Marquette
- ▶ Traverse City

### Next steps:

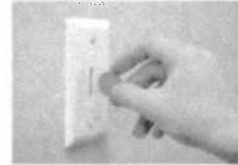
- ▶ Michigan Public Service Commission compiling report from forums
  - ▶ Renewable Energy Report issued 9/16
- ▶ Gov. Snyder will use it for his policy recommendations

Increasing Michigan's use of renewable energy will create jobs, spark investment and launch new businesses in our state.



Renewable energy also builds upon our manufacturing strength, talent and know-how.

Renewable energy helps rein in rising energy costs.



2015 will be here before we know it.

